CLAIMS

What is claimed is:

- 1. A resin composition comprising a polymer and a solvent, characterized in that said polymer is obtained by polymerizing the following monomers:
 - (a) an acrylate monomer;
 - (b) a tertiary carboxylic ester; and
 - (c) a monomer selected from the group consisting of a fluoro acrylate monomer, a silicone monomer, and a mixture thereof.
- 2. The composition of claim 1 wherein said solvent is a benzene compound, an ester, or a ketone, or a mixture thereof.
- 3. The composition of claim 2 wherein said benzene compound is selected from benzene, o-xylene, m-xylene, p-xylene, trimethylbenzene, and styrene, and a mixture thereof.
- 4. The composition of claim 2 wherein said ester is selected from the group consisting of ethyl acetate, butyl acetate, diethyl carbonate, ethyl formate, methyl acetate, ethoxyethyl acetate, ethoxypropyl acetate, and monomethyl ether propylene glycol ester, and a mixture thereof.
- 5. The composition of claim 2 wherein said ketone is selected from the group consisting of acetone, methyl ethyl ketone, and methyl isobutyl ketone, and a mixture thereof.
- 6. The composition of claim 1 wherein

wherein R^1 is halogen, H, CH₃, or C_2H_5 ; and R^2 is H, CH₃, C_2H_5 , C_3H_7 , C_4H_9 , C_2H_4OH , C_3H_6OH , NH_2 , $C_{10}H_{17}$, or the group of the following formula:

- 7. The composition of claim 6 wherein said acrylate monomer is selected from the group consisting of acrylic acid, methacrylic acid, methyl acrylate, methyl 2-methyl-acrylate, butyl acrylate, butyl methacrylate, 2-hydroxyethyl acrylate, 2-hydroxyethyl methacrylate, 2-hydroxypropyl methacrylate, and hexyl 2-ethylacrylate, and a mixture thereof.
- 8. The composition of claim 1 wherein said tertiary carboxylic ester has the following general formula:

wherein R^3 , R^4 , and R^5 independently represent a straight or branched alkyl chain: C_mH_{2m+1} , wherein m is an integer ranging from 1 to 15, and R^6 is selected from the group consisting of

- 9. The composition of claim 8 wherein said tertiary carboxylic ester is selected from the group consisting of vinyl saturated tertiary decanoate, vinyl saturated tertiary nonanoate, and epoxy propyl saturated tertiary decanoate, and a mixture thereof.
- 10. The composition of claim 1 wherein said fluoro acrylate monomer has the following general formula:

$$R^fCH_2CH_2O(O)CC(R)=CH_2$$

wherein R^f is a straight or branched perfluoroalkyl chain: C_nF_{2n+1} , wherein n is an integer ranging from 2 to 20, and R is H, CH_3 , C_2H_5 , or C_3H_7 .

11. The composition of claim 10 wherein said fluoro acrylate monomer is a fluoroalkyl

methacrylate or a mixture thereof.

12. The composition of claim 1 wherein said silicone monomer has the following general formula:

$$\begin{array}{c|c} Me \\ R^{7} - Si \longrightarrow \begin{bmatrix} Me \\ O - Si \longrightarrow \\ Me \end{bmatrix} \begin{matrix} Me \\ O - Si - R^{8} \\ n & Me \end{array}$$

wherein R⁷ and R⁸ independently are H, CH₃, CH₂=CH, NH₂, NH₂-C₃H₆, OH-C₂H₄OC₃H₆, CH=CCH₃-COOH, CH=CH-COOH, or

wherein n = 10 to 250.

- 13. The composition of claim 1 further comprising one or more vinyl monomers.
- 14. The composition of claim 13 wherein said vinyl monomer has the following general formula:

R, wherein R is selected from the group consisting of:

- 15. The composition of claim 13 wherein said vinyl monomer is selected from the group consisting of styrene, vinyl ethyl ether, cyclohexyl vinyl ether, 4-hydroxybutyl vinyl ether, n-butyl vinyl ether, isobutyl vinyl ether, n-propyl vinyl ether, and isopropyl vinyl ether, and a mixture thereof.
- 16. The composition of claim 1 wherein said solvent is present in an amount, based on the total weight of the composition, of from 20 to 70 wt%.
- 17. The composition of claim 1 wherein said acrylate monomer is present in an amount,

- based on the total weight of the monomers used, of from 20 to 80 wt%.
- 18. The composition of claim 1 wherein said tertiary carboxylic ester is present in an amount, based on the total weight of the monomers used, of from 5 to 50 wt%.
- 19. The composition of claim 1 wherein said fluoro acrylate monomer is present in an amount, based on the total amount of the monomers used, of from 1 to 40 wt%.
- 20. The composition of claim 1 wherein said silicone monomer is present in an amount, based on the total weight of the monomers used, of from 1 to 40 wt%.
- 21. The composition of claim 13 wherein said vinyl monomer is present in an amount, based on the total weight of the monomers used, of from 5 to 40 wt%.
- 22. A coating for the surface of a substrate comprising the resin composition of claim 1.
- 23. A method of coating the surface of a substrate comprising applying the resin composition of claim 1 to the surface of the substrate.
- 24. The method of claim 29 wherein said substrate is a metal, an alloy, a computer case, a wooden article, plastic material, leather, or stone material.